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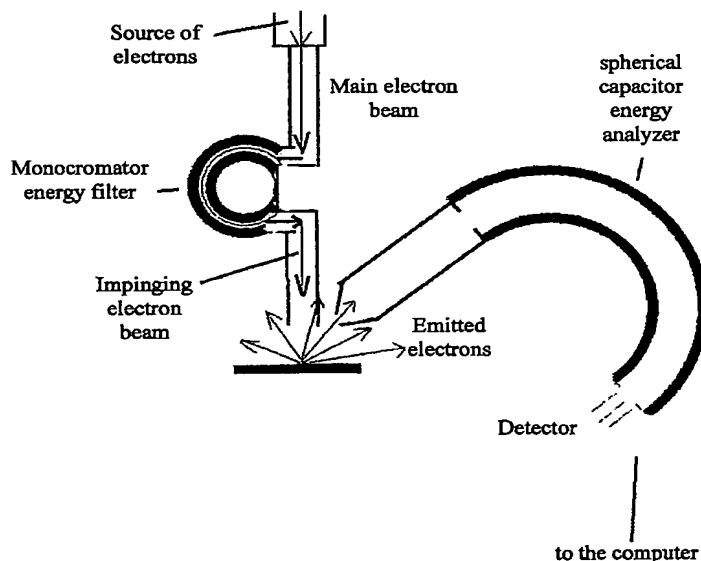
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(54) Title: **ELECTRON SPECTROSCOPE WITH EMISSION INDUCED BY A MONOCHROMATIC ELECTRON BEAM**



(57) Abstract: An electroscope system based on exciting a certain area of the surface of a sample to emit electrons with a characteristic distribution of kinetic energies, has the analyzed area of the sample excited by an electron beam produced by a field emission source and a monochromator energy filter of said electron beam disposed down-stream of the electron source. The field emission electron source is preferably a Schottky source and monochromator energy filter reduces energy dispersion of the electrons of said electron beam to less than 0.2 eV. Microareas of linear dimensions in the order of ten nm may be analyzed while observing them gathering information on the chemical state of detected elements present at the surface of the examined microarea of the sample.

WO 2005/033683 A1